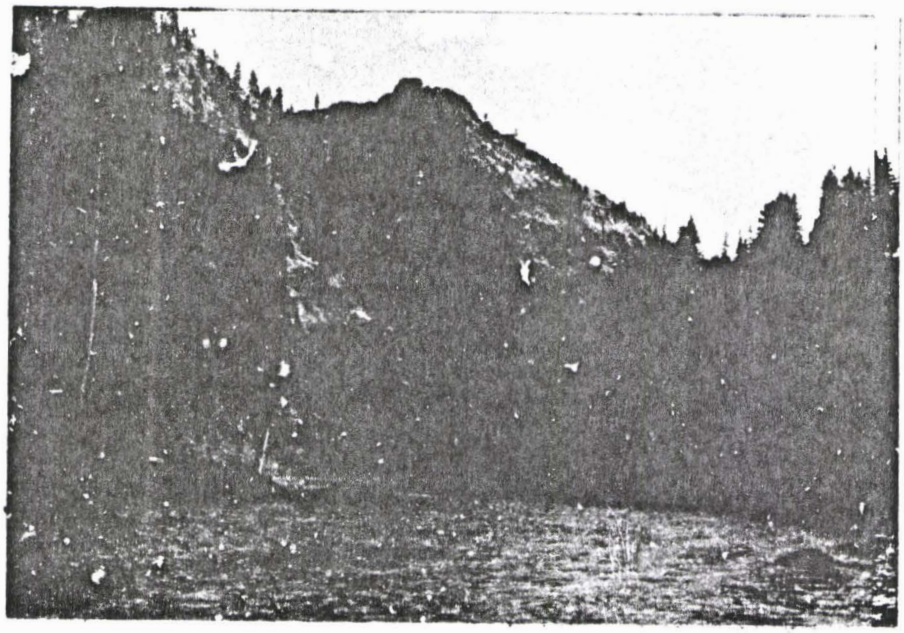
§12 0122

class of 83

FLANIK

The Grande Ronde & Wallowa Rivers:
Use Information
Interim Management Recommendations
March 1984



Gerald
By: CARY R. FLANIK, District Ranger
Walla Walla Ranger District
Umatilla National Forest
1415 W. Rose
Walla Walla, WA 99362
Com.- 509-522-6293
FTS.- 434-6293

This paper was prepared as a student project in partial fulfillment of the requirements of the Professional Development for Outdoor Recreation Management program at Clemson University. It in no way reflects U.S. Forest Service policy nor are the opinions expressed those of anyone other than the author.

ABSTRACT

Recreationists have floated the Grande Ronde and Wallowa Rivers for the past 75+ years with no restrictions or controls on private use. Commercial use has been regulated since 1978 with no limit on the number of outfitter-guide permits. Commercial operators have no restrictions on launch dates, party size, or campsites used. Present management is very extensive and the few existing primitive facilities receive little or no maintenance.

The National Forest land through which the Grande Ronde River flows is currently being studied as part of the forest planning process. Alternatives for the area will include designation as a candidate for the National Wild and Scenic Rivers System and allocation as Scenic Recreation.

This paper will compile past use studies and project approximate use in the future. Interim management practices are recommended to protect the basic resource until such time as a detailed management plan is written. Also, recommendations will be made to establish base line use data and to monitor any adverse impacts on the environment.

TABLE OF CONTENTS

		Page
I.	Introduction	1
II.	Signifigance of Study	7
III.	Literature Review	8
IV.	Analysis	10
	A. River use - historical and predicted	10
	1. Total use	10
	2. Timing of use	12
	3. User patterns - Primary activity and type of craft	12
	4. Recreation user profiles	12
	5. Commercial use	15
	B. Evaluate recreation use impact on river environment	17
V.	Summary and Recommendations	20
	A. Past studies and predictions of future use	20
	Recommendations	21
	B. Future studies needed	21
	Recommendations	21
	C. Interim Management Practices	21
	Recommendations	21
VI.	Appendix	25
	A. Appendix A	25
	B. Appendix B	27
	C. Appendix C	28
	D. Appendix D	29
	E. Appendix E	30
	F. Appendix F	32

I. INTRODUCTION

I. Introduction

Since the early 1900's recreationists have floated the Grande Ronde River. Floating increased in popularity when rubber rafts and drift boats replaced log rafts.

The Grande Ronde River is the major drainage system of Northeast Oregon and remains in a free-flowing condition at this time.

A cooperative agreement for visitor management on the Grande Ronde, Wallowa and Minam Rivers was approved in 1981 between the Bureau of Land Management (BLM) and the U.S. Forest Service (Umatilla and Wallowa - Whitman National Forests). Under the agreement, the following river segments were delineated:

SECTION 1. The Minam River from Red's Horse Ranch in the Eagle Cap Wilderness to Minam, OR.

SECTION 2. Ten miles of the lower Wallowa River and 29 miles of the lower Grande Ronde River from Minam, OR (Oregon Highway 82) to the Wildcat Creek above Troy, OR.

SECTION 3. Fifty three miles of the lower Grande Ronde River from the Wildcat Creek to the confluence with the Snake River near Heller's Bar (Asotin) Washington.

Since over 80 percent of the recreation use and all the National Forest land occurs within River Section 2, this paper will be limited to that section. Also, throughout the paper, any reference to the Grande Ronde River also includes the lower ten miles of the Wallowa River. See Appendix B for a general location map of the area.

A recreation area plan for the Grande Ronde Canyon was completed in 1969 which included 11,434 acres within the Umatilla and Wallowa - Whitman National Forests. The purpose of the recreation area plan was to maintain the undisturbed natural beauty and unusual recreation opportunities. The plan never received final Regional Forester approval.

The Elgin Planning Unit Land Management Plan allocated the Grande Ronde corridor as Scenic Recreation. The area is currently being studied under the Forest planning process. The Grande Ronde River is presently included in the Nationwide Rivers Inventory for possible designation under the Wild and Scenic Rivers Act (PL90-542).

The State of Oregon is presently considering the Grande Ronde River as a state scenic waterway. Two public meetings were held in November, 1983 with strong support for the scenic waterway study. State Parks and Recreation personnel plan to complete the study during the summer of 1984.

Under the inter-agency cooperative agreement, the Walla Walla District is responsible for all facility management, administration and visitor use data in River Section 2. These responsibilities also include the issuance of all commercial outfitter-guide permits except the Eagle Cap District, Wallowa - Whitman National Forest is responsible for commercial permits which both originate and terminate in Section 1. Also, the Bureau of Land Management will issue all commercial permits which originate in River Section 3.

Management of the recreation use on River Section 2 is severely complicated by the broken ownership pattern and the lack of access to the area. Discussion necessary to understand the specific management problems follows:

1. Minam, OR (Hwy 82) launch location. This is the primary put-in site used by the private and commercial floaters. The site is owned by the State of Oregon and private parties. The private land is presently open to the public but could be closed at any time. The lack of any sanitation facilities creates a serious human waste problem.

   The Minam State Park, located about one mile down river from Minam, is also used by floaters as a launch point. The campground was not designed with proper launch facilities and the site shows some adverse impacts.

2. Wallowa River to Rondowa (confluence of the Wallowa and Grande Ronde Rivers). This ten mile stretch has a railroad parallel to the river but no road access. This section of river is almost entirely in private ownership; however, unrestricted camping has been allowed in the past.

3. Rondowa, major put-in/take-out point in the past. At present the bridges over the Grande Ronde and Wallowa Rivers have been removed and the private road from Palmer Junction to Rondowa is generally closed.

   The private road to Rondowa from the east is open intermittently, but for all practical purposes, cannot be considered public access. The private land at the confluence of the rivers has been identified as a possible campground and launch site.

4. Rondowa to Wildcat Creek. Skyline logging has been completed on the private land from Rondowa for approximately two miles down stream. The next 17 miles of river traverses the Umatilla and Wallowa - Whitman National Forests. This stretch of river is through a deep

canyon of high scenic beauty with heavily forested plateaus giving way to prominent rim rock formations. No roads or trails are present in this undistrubed canyon.

Below the National Forest boundary, the canyon is less forested, with more grass slopes and scenic rock outcroppings. The intrusions of man become evident in this section with an early days homestead and roads visible in the distance. Most of the land adjacent to this stretch of river is administered by the Bureau of Land Management or is owned by the State of Oregon. A primitive road parallels the lower part of this river segment.

The take-out site at the Wildcat Creek (Powwatka Bridge) is owned by the State of Oregon. The one primitive toilet was removed in 1983 after the pit filled up and the building was vandalized. Most of the land above the State land has been purchased by one individual and is posted to prohibit any form of tresspass.

The Grande Ronde River Canyon has few facilities for recreationists. Five sites have limited improvements such as picnic tables and fire rings. Three of the sites have wilderness type toilets that are presently nearly full and need to be moved. The pack-it-out garbage policy has been implemented with varying degrees of success

Boise Cascade Corporation filed applications for preliminary permits with the Federal Energy Regulation Commission for one impoundment on the Wallowa River about three miles above Rondowa and one impoundment on the Grande Ronde River about three miles below Rondowa. Boise Cascade Corporation has since withdrawn these permit applications.

The Grande Ronde River remains relatively uncrowded due primarily to three factors: (1) distance from population centers: (2) low summer flows: and (3) lack of higher class white water. Recreation use on the river varies greatly depending on the season of the year. Most of the rapids are class I, II, and III. During the 1983 season 82 percent of the use was floating during the high volume runoff months of May through mid-July (Farnam, 1984). During the period from late July through September, fishing and family camping become the primary activity. Big game hunting (elk and deer) is the primary activity in October and November with little or no use during the winter months. Most people spend two or three days floating River Section 2.

Rubber rafts (most with rowing frames) make up approximately 70 percent of the craft floating the river. Also popular are wooden drift boats, whitewater canoes and kayaks (Farnam, 1984).

Commercial use on the river has been regulated since 1978 when four outfitter-guide permits were issued. Last year 21 outfitter-guide permits were issued. A total of 428 clients were served in 1,128 user days. Six permitted outfitter-guides reported no actual use during the year. Most commercial operators use the Grande Ronde River as supplemental or as a change-of-pace and conduct their principal operations on other rivers of the west. To date, no limit has been set on the number of commercial outfitters and the permits contain no restrictions on number or timing of trips, party size, or campsites.

As other rivers in the west become more crowded and/or restricted and as the Grande Ronde River becomes more popular due to state or national designation, base line user data will be essential to determine carrying capacities based on recreation user objectives. Correlation of user information between the Grande Ronde River and other rivers of the west has not been possible from any studies conducted to date.

Until recently user information on the Grande Ronde River has been only estimates of total use based on expansion factors. A more detailed study was conducted in 1983 by Julie Farnam under a cooperative agreement between the Eastern Oregon State College and the Bureau of Land Management/U.S. Forest Service. This study included information relative to the social carrying capacity, but days sampled were inadequate for accurate projections of total use.

The Bureau of Land Management and Forest Service personnel conducted a camping site inventory along river Section 2 during the summer of 1983. This was the first attempt to actually locate suitable camping sites and make estimates of physical capacity and any site deterioration caused by past use.

This study will compile and summarize all past river use information and estimate future use levels. The study will compare the present and projected use with the physical capacity of the River.

The study will also recommend interim management practices needed to protect the River environment.

II. SIGNIFICANCE OF THE STUDY

II. Significance of the Study

This study will fulfill the following purposes:

A. Compile and correlate past use studies and to make general predictions of future use levels.

B. Evaluate and recommend future research needs.

C. Recommend interim management practices for the protection of the river environment until a comprehensive management plan is written.

The study will provide background information for use in the Forest planning process. Also, the plan is being prepared as information for State of Oregon personnel in the study of the Grande Ronde River as a proposed scenic waterway.

This study was prepared in partial fulfillment of the requirements of the Professional Development for Outdoor Recreation Management program at Clemson University.

This study will make no attempt to recommend river management objectives by experience levels or to provide input to an inter-agency management plan.

III. LITERATURE REVIEW

III. Literature Review

This study will bring together all available data from previous studies to help with future needs for information, management objectives and techniques.

A review of the history and use trends of river recreation was the first priority needed to proceed with the study. Much background information was found in papers by McCool (1978); Nash (1977); Mak (1977); Eastman (1977); Roggenbuck (1975); and Brown (1977).

Historical use data on the Grande Ronde River were collected from the unpublished Grande Ronde River Recreation Area Plan (1969) and studies conducted by Gary Anderson, Oregon Department of Fish and Wildlife, in 1971, 1977, and 1981 will be used as the source for use levels prior to 1983.

A study completed by Julie Farnam under an agreement between the BLM/Forest Service and Eastern Oregon State College will be used to give general use levels for the 1983 season. The survey also summarized recreation use by month of the year, types of craft, primary acitvity, floating time, and camp sites.

Past commercial use on the River was obtained by using U.S. Forest Service records of permitted and actual use from 1978 through 1983.

A thorough understanding of the concepts of the physical, biological and carrying capacities was required prior to completion of this study. Some information was collected from studies such as Brown (1977); Aitchison and Johnson (1977); Heberlein (1977); Roggenbuck and Schreyer (1978)(1979); Schreyer (1977); Lime (1977); Lime, Knopf and Peterson (1980); and Vaske, Graefe and Kuss (1983).

Of the 50+ papers reviewed during the literature search, only a very few were of significant value in the completion of this project. Most of the literature written to date deals with rivers which are now at or exceeding proper use levels. Much of the literature dealt with various forms of allocation of use. Information on River use that is less than the physical, environmental and social carrying capacities (such as the Grande Ronde) was quite limited.

IV. ANALYSIS

IV. Analysis

Prior to any attempt at setting realistic management objectives or allocation of recreation use, an accurate information data base must be established. This study will compile and analyze all past studies and records. The analysis will consider the physical, social, and biological aspects of the river.

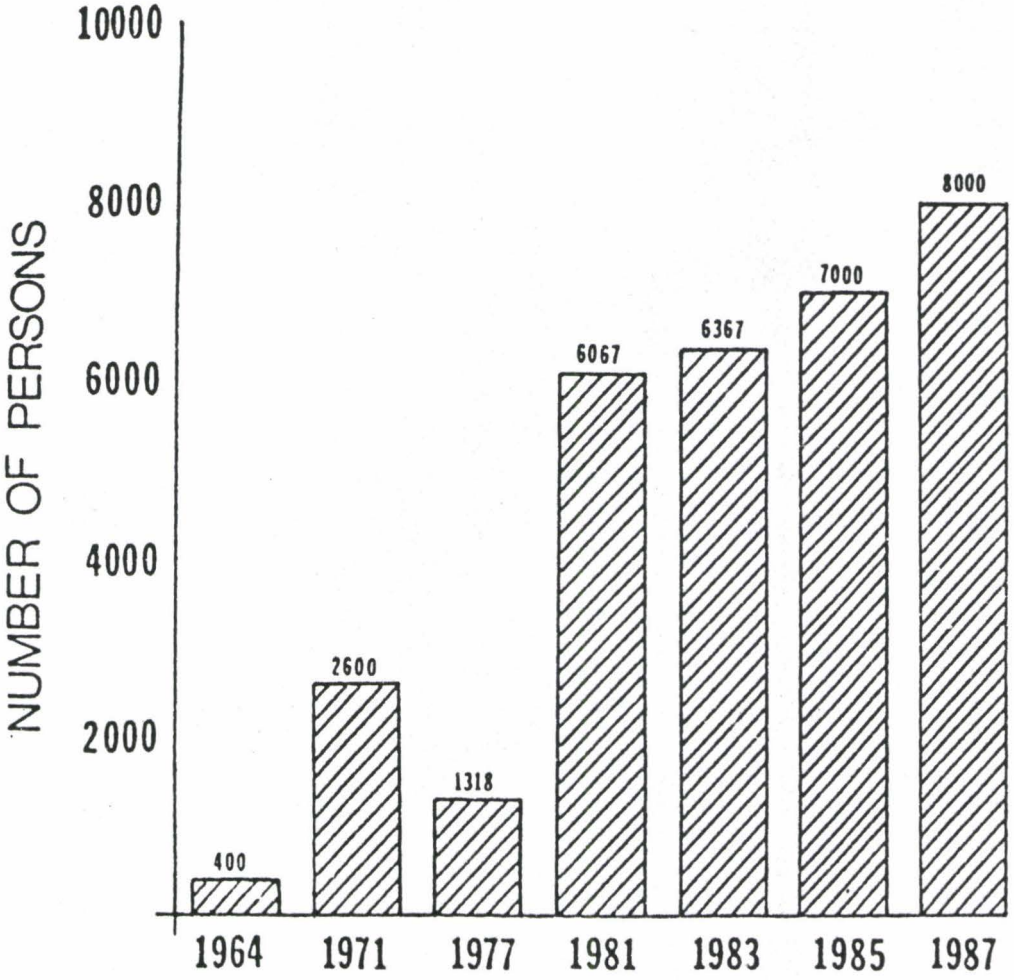
A. RIVER USE HISTORICAL AND PREDICTED

1. Total Use

Several studies of the last decade have documented the rapid growth of river recreation and predictions of continued future growth (McCool, 1978; Roggenbuck, 1975). Recreation use on the Grande Ronde River has increased rapidly. This growth pattern is expected to continue as the sport becomes more popular and as other rivers become more regulated. Figure 1 visually demonstrates the rapid recreation growth from 1964 to 1983 and educated guesses of future use levels.

The use levels shown in Figure 1 are from published and unpublished sources and are to be used only for general information. Studies conducted prior to 1983 under estimated predicted river use by about 40 percent. The number of floaters recorded in 1977 was not typical due to the lack of flow during the drought year (Anderson, 1977). Predicted use for 1985 and 1987 are estimates only and may be quite conservative due to user displacement on other rivers.

FIGURE 1



ESTIMATED USERS BY YEAR

2. Timing of Use

Both the total amount and timing of use on the river is highly dependent on spring runoff. The Grande Ronde River is characterized by extremely high spring flows that recede rapidly to minimum flow levels by about July 15 to August 1.

Anderson found that in 1981 over 92 percent of the recreation use occurred between May and July. Note in Figure 2 the correlation between river flows and total number of users. Farnam reported that in 1983 the river was at extreme flood stage with dangerous floating debris over the Memorial Day weekend. Several parties changed their plans after seeing the river conditions. Most recreationists stop floating the river at about the 1500 CFs level which is quite low by Western river standards.

3. User Patterns

Farnam found that 88 percent of the parties surveyed listed floating as their primary activity. This finding correlates with the fact that most users float the Grande Ronde during high flows when turbidity generally precludes fishing or water contact sports.

Farnam also found that most people were in rubber rafts (81%) and other popular crafts included drift boats (8%), canoes (6%), and kayaks (4%). She found that the average party size was seven and the average number of people per watercraft was three.

4. Recreation User Profiles

Any study of recreational demand on the Grand Ronde River must include the origin of the users. The following information was

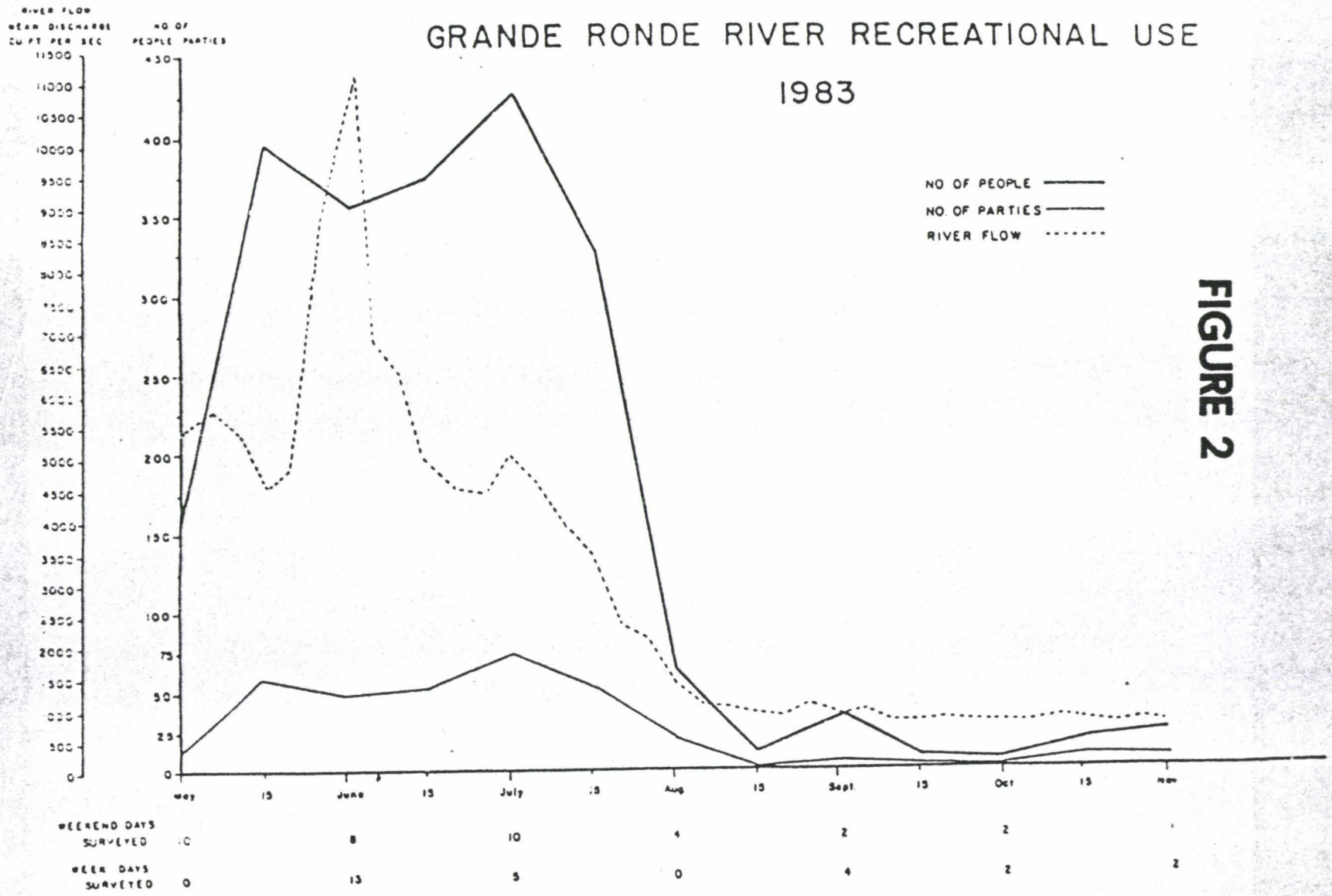

GRANDE RONDE RIVER RECREATIONAL USE
1983
RIVER FLOW
MEAN DISCHARGE
CU FT PER SEC
NO OF
PEOPLE PARTIES
NO OF PEOPLE
NO OF PARTIES
RIVER FLOW
11500
11000
10500
10000
9500
9000
8500
8000
7500
7000
6500
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
450
400
350
300
250
200
150
100
75
50
25
0
May
15
June
15
July
15
Aug
15
Sept.
15
Oct
15
Nov
WEEKEND DAYS SURVEYED
10
8
10
4
2
2
WEEK DAYS SURVEYED
0
13
5
0
4
2
2

FIGURE 2

compiled from studies in 1981 by Anderson with 670 persons in the sample population and by Farnam in 1983 with 2,204 persons in the same population.

Most of the river recreationists come from Oregon which is logical since most of the river flows in that state. Washington residents are the second heaviest users with about 30 percent of the total use. Oregon and Washington together account for approximately 90 percent of the use. This supports the theory of the Grande Ronde River being of regional rather than national significance.

The higher use by Idaho residents reported by Farnam was in part due to the fact that her study included a survey station in the lower Grande Ronde River (Section 3). Many floaters from Lewiston, Idaho utilize River Section 3 for short day use trips. Anderson's study was conducted entirely within River Section 2.

Since the Grande Ronde River is located in the extreme eastern parts of Oregon and Washington, the finding that 65 percent of the users are from the eastside of the Cascade Mountains should be of no suprise. Of significance however, is that nearly half of the recreationists drive over 300 miles each way to float the river. Reported use by persons from the more urban population centers of the westside of the Cascades increased from 35 percent in 1981 to 45 percent in 1983.

A significant finding by Farnam in 1983 was that 1,266 of 2,204 (57%) of the users were on the Grande Ronde River for their first time. An earlier study commented that "Although specific figures were not recorded, a significant number of persons interviewed were people taking the Wallowa-Grande Ronde Float Trip for the first time" (Anderson, 1981).

5. Commercial Use

Commercial use on the Grande Ronde River has been regulated since 1978. Some commercial outfitters used the river prior to 1978 but no efforts were made to regulate the use on federal lands.

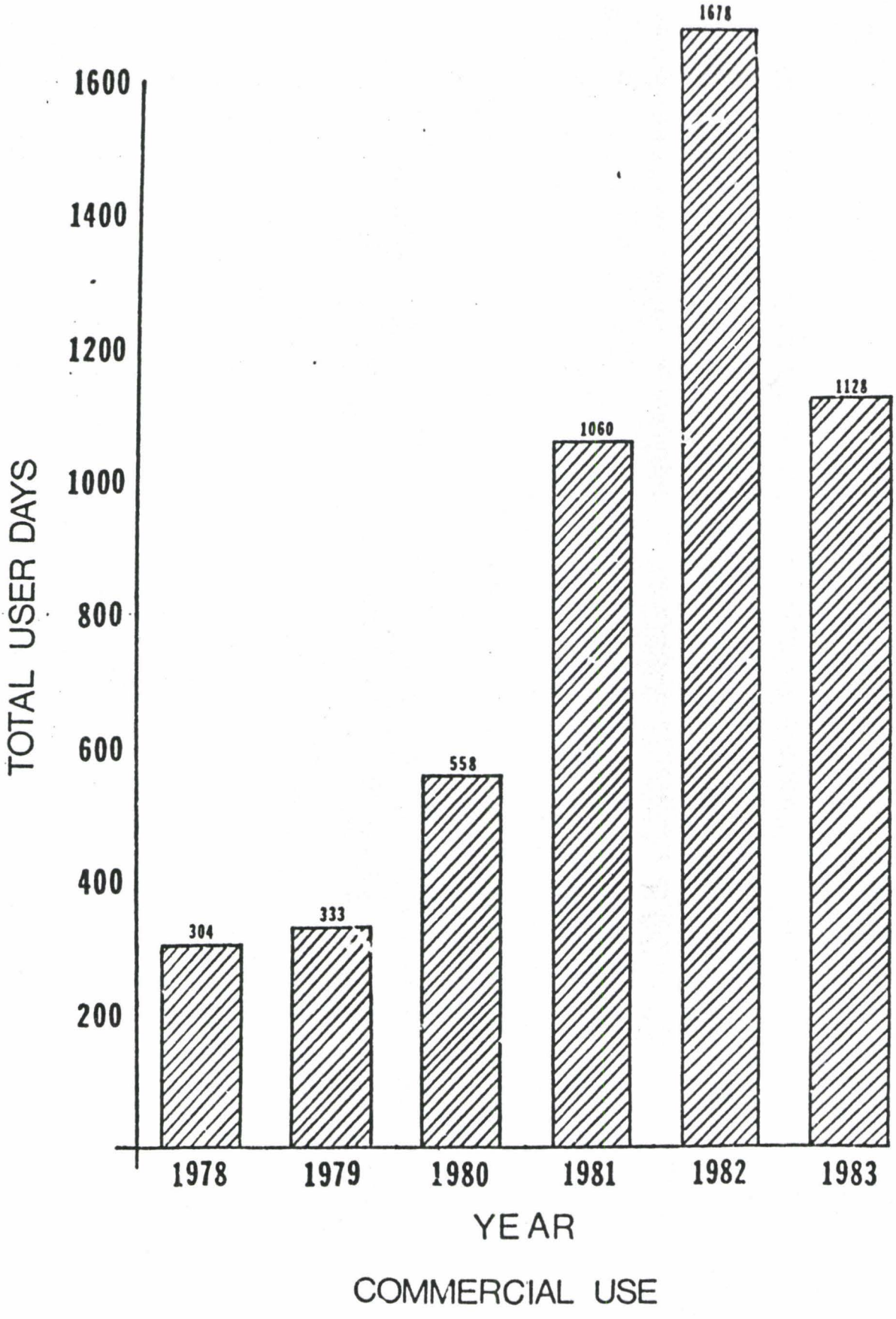
Figure 3 displays the increase in river use by guests of commercial operators. The lower use in 1983 was at least partially due to the long, wet spring. Some operators reported trips were canceled over Memorial Day weekend due to rain, cold weather, and floating debris.

Although a special use is required to use federal land, no limit has been set on the number of outfitters or on total use. The number of outfitters with permits has increased from 4 in 1978 to a high of 23 in 1982, and 21 in 1983. During the 1983 season six permitted outfitters reported no actual use.

Because of the trend on other rivers to limit the number of commercial operators, this investigator thinks some outfitters apply for a permit on the Grande Ronde River merely to establish a history of use. One outfitter reported that the minor use he reported in 1982 was a trip taken by his own guides and no guests. Reporting minor use has no financial impact on commercial users since the minimum fee is for 100 visitor days use.

Most outfitters have other rivers as their primary base of operations and use the Grande Ronde as an alternate experience or to fill slack periods. Most commercial operators have open dates after receiving their allocation on the major regulated rivers of the west. Trips are often scheduled on the unregulated Grande

FIGURE 3



COMMERCIAL USE

Ronde River to fill in these voids. During the 1983 season only 4 of the 21 commercial operators listed the Grande Ronde River as the only river floated. Three other operators live in Northeast Oregon but conduct operations on other rivers of the West and Alaska.

B. EVALUATE RECREATION USE IMPACT ON RIVER ENVIRONMENT

Administration of the Grande Ronde River by the Forest Service has been very extensive in the past. Photographs and old records indicated that occasional float trips were taken during the 1960's for general administration and litter collection. From 1970 to the present, the Forest Service has taken at least one trip per year for general administration, fire prevention and garbage cleanup. The Grande Ronde River brochure encourages the "pack-it-out" garbage policy.

In 1971 the Forest Service used a helicopter to fly heavy picnic tables and fireplaces to three of the more heavily used sites. Wilderness toilets were installed at three of the camp sites. Little maintenance has been done to any of these improvements. The two wilderness toilets are full and need to be relocated. Two of the original picnic tables have been moved down river to other land ownerships by the floaters. Some fire proofing around fire rings has been accomplished to prevent large project forest fires.

In July, 1983 Dohrmann, Roehm, and Cole, U.S. Forest Service, conducted a Code-A-Site inventory of private and National Forest lands from

Rondowa to the forest boundary. Each site was evaluated as to the number of possible tent sites, improvements, and possiblity of further expansions. The frequency of use and the impacts of previous use were estimated for each camping area.

Dohrmann found 47 sites which he mappen and inventoried. A total of 229 possible tent sites were located and, assuming three people per sight with 25 of 47 (53%) of the sites recorded as ranging from no use at all up to light use. Eighteen (38%) of the sites recorded moderate use and only four (9%) sites reported as frequent use. Recreation use impact on the environment was also judged to be low. Impact of past use was found to be none to light at 25 of 47 (53%) of camp sites, moderate at 19 (41%), heavy at 3 (6%), and none with extreme impacts. The three sites that show heavy user impact are the most popular camping areas and two of the three have improvements such as tables and toilets.

Dohrmann also found five suitable camping areas on private land on the Wallowa River above Rondowa. Four excellent camping areas were found within five miles of Rondowa which could accomodate large numbers of users. A commercial outfitter used one of these sites in 1982 for a special group of 50 guests and 15 guides and was quite pleased with the site. Code-A-Site inventories were not completed on private land but the sites are designated on a topographic map.

Dave Hunsaker, BLM, inventoried the camping sites in 1983 in the lower part of River Section 2 from the National Forest boundary to the Wildcat Creek Bridge. Within this ten mile stretch of river, Hunsaker inventoried 11 sites which would accommodate about 200 people. Four of these sites were rated as excellent overall. Many recreationists

use the sites in this section of the river as rest or lunch stops due to the close proximity of the take-out point at Wildcat Creek. Hunsaker did not record the frequency of site use or the impact of previous use on the environment.

Inventoried camping sites are more than adequate to meet present demand. A total of 67 camping sites (47 National forest, 13 private, and 7 BLM) were identified with a capacity of between 950 and 1,000 people at one time. During 1983 the maximum use on any day was 145 people and the number exceeded 100 on three days during the season (Farnam, 1984). The campsites are well distributed throughout River Section 2.

The primary launch site at Minam (Hwy 82) and the main take out point at Wildcat Creek (Powwatka Bridge) are areas of major concern due to the lack of sanitation facilities. Also no informational signs are in place to assist the river recreationists. Presently the private land is open to the public but this situation could change at any time.

The pack-it-out garbage policy generally works within the river canyon. Forest Service patrols have found less garbage in the last few years as the recreation users become more sensitive to the ecology of the river environment. One exception to this trend is the elk hunters in the fall who often leave garbage, plastic, and homemade improvements.

V. SUMMARY AND RECOMMENDATIONS

V. Summary and Recommendations.

The Grande Ronde River is Relatively uncrowded at this time and receives little management attention. Most of the people contacted liked the lack of restrictions imposed on the recreationists and realized that someday some restrictions and allocation of use may be necessary.

A. PAST USE STUDIES AND PREDICITONS OF FUTURE USE

Use of the Grand Ronde River by floaters has increased dramatically in the past and is expected to increase in the future. As river recreationists are physically or socially displaced from other rivers of the West, the Grande Ronde River could experience a rapid rise in use. The number of first time floaters in 1983 indicates this increase may become a reality in the near future.

The impacts of previous levels of use have been light with the exception of the launch and take out points and three of the more popular sites on the river. As recreation use increases in the future on River Section 2, the environment will become detrimentally impacted. Because of the complex ownership pattern, any management system on the river must include Federal (BLM & FS), State of Oregon, and the private land owners.

Based on the preceding analysis and a review of available literature this investigator concludes that the river has not reached the physical, biological, or social carrying capacities.

Recommendations

1. Continue to manage the Grande Ronde River with few restrictions until such time as environmental or social problems develop.

2. Initiate process to develop a comprehensive management plan which must involve Federal and State agencies and the major private land owners.

B. FURTHER STUDIES NEEDED

As use of the Grande Ronde River increases, an accurate data base must be established to measure both physical and social changes.

The Grande Ronde River is unique in the respect that an opportunity exists to establish a sound data base of information before allocation of use and controls are needed. The presence of a statistically sound data reference base must be available for use in determining management objectives based on recreation experience levels.

A system of monitoring the impacts of increased recreation use should be established. This information would be quite valuable for any future management plan or allocation of use.

Recommendations

1. Implement a research project on the Grande Ronde River as part of the National River Recreation Study. Complete the study in 1985 or 1986 with multi-agency financing.

2. Repeat the National River Recreation Study at three to five year intervals.

3. Develop Recreation Opportunity Spectrum (ROS) objectives for the Grande Ronde River. Monitor whether ROS objectives are being met by using the technique of limits of acceptable change.

4. Monitor and record frequency of use and impacts of previous use at inventoried campsites.

5. Provide a copy of this paper to the Department of Parks and Recreation, State of Oregon, for use in the state scenic waterways study.

C. INTERIM MANAGEMENT PRACTICES

Some interim management techniques should be implemented for the protection of the river environment until such time as a comprehensive management plan is written and implemented. With the current and expected levels of financing for dispersed recreation the agencies must develop innovative ways to deal with the immediate problems such as sanitation, litter, and fire prevention. The State or Oregon must become involved with current management problems whether or not the river becomes designated as a state scenic waterway.

Recommendations

1. Complete the following work items during the 1984 float season through Forest Service administrative trips and by working with whitewater rafting clubs and other volunteers.

    a. Move the wilderness toilets at Clear Creek, Bear Creek, and Elbow Creek.
    b. Brush out trails and sign location of toilets.
    c. Fireproof area immediately adjacent to the grills and fire rings.
    d. Clean up garbage and litter along river.
    e. Dismantle structures and clean up hunter camps.

2. Work with Oregon State agencies and volunteers to protect the site at Minam (Hwy 82) launch point.

a. Clean up litter on State and private land.

b. Install at least one approved toilet.

c. Build and install a bulletin board to hold brochures and to display other information such as the pack-it-out garbage policy.

3. Initiate action for land exchange or purchase of the Minam launch site. The launch site could be maintained by the Oregon State Parks and Recreation Division.

4. Work with Oregon State agencies and volunteers to protect the take-out site at Wildcat Creek (Powwatka Bridge).

a. Clean up litter.

b. Install at least one approved toilet.

VI. APPENDIX

VI. APPENDIX

APPENDIX A

Literature Cited

Aitchison, S.E.; Carothers, S.W.; Johnson, RR, 1977. "Some Ecological Considerations Associated with River Recreation Management" U.S. North Central Forest Experiment Station General Technical Report 28:222-225.

Allen, Herb, Resource Assistant, Wallowa Whitman National Forest, personal contact.

Anderson, Gary A., 1971, 1977, and 1981. Oregon Department of Fish and Wildlife, "Lower Wallowa and Grande Ronde River Trout Study."

Brown, P.J., 1977. "Information Needs for River Recreation Planning and Management" U.S. North Central Forest Experiment Station General Technical Report 28:193-201.

Dohrmann, R.; Roehm, L.; Cole, E., "Code-A-Site Inventory - Grande Ronde River", 1983.

Eastman, R.L., 1977. " River Preservation and Recreation Programs", U.S. North Central Forest Experiment Station General Technical Report 28:178-482.

Ebel, F. Cheif Forester, Boise-Cascade Corp., personal contact.

Farman, J.A., 1984. "Grande Ronde River Use Survey", Regional Services Institute, Eastern Oregon State College.

Grande Ronde River - National Forest Recreation Plan, Umatilla and Wallowa - Whitman National Forests, 1969.

Hanks, D., Resource Assistant, Toyiabe Naitonal Forest, personal contact.

Heberlein, T.A., 1977. "Density, Crowding, and Satisfaction: Sociological Studies for Determining Carrying Capacities," Department of Rural Sociology, University of Wisconsin, Madison, Wisconsin.

Hughes, Mrs. J., Hughes River Expeditions, personal contact.

Hunsaker, D., Bureau of Land Management 1983, "Campsite Inventory Grande Ronde River."

Lily, J.E. Parks and Recreation Division, State of Oregon, personal contact.

Lime, D.W. 1977. "Research for River Recreation Planning and Management", U.S. North Central Forest Experiment Station General Technical Report 28:202-209.

Lime, D.W.; Knopf, R.C.; Peterson, G.L. 1980. "The National River Recreation Study: Growing New Data Base With Exciting Potential", Some recent products of river recreation research. USDA Forest Service General Technical Report NC-63, North Central Forest Experiment Station.

Mak, K.R.; Jensen M.O.; Hartman, T.L. 1977. "Management Response to Growing Pressures in Western Whitewater Rivers The Art of the Possible", U.S. North Central Forest Experiment Station General Technical Report 28:102-109.

McCool, F.F. 1978. "Recreation Use Limits: Issues for the Tourism Industry", Journal of Travel Research 17(2):2-7.

Nash, R. 1977. "River Recreation: History and Future", U.S. North Central Forest Experimental Station General Technical Report 28:2-7.

Roggenbuck, J.W. 1975. "Socio-Psychological Inputs Into Carrying Capacity Assessments for Float-Trip Use of Whitewater Rivers in Dinosaur National Monument. Unpublished doctoral dissertation, Logan, Utah: Utah State University.

Roggenbuck, J.W. 1978. "Relations Between River Trip Motives and Perception of Crowding, Management Preference and Experience Satisfaction", U.S. North Central Forest Experiment Station General Technical Report 28:359-364.

Schreyer, R.M., Asst. Professor, Utah State University, personal contact.

Schreyer, R. 1977. Restricting Recreational Use of Wildlands: Lessons From Whitewater Rivers. Western Wildlands, 4(2):45-52.

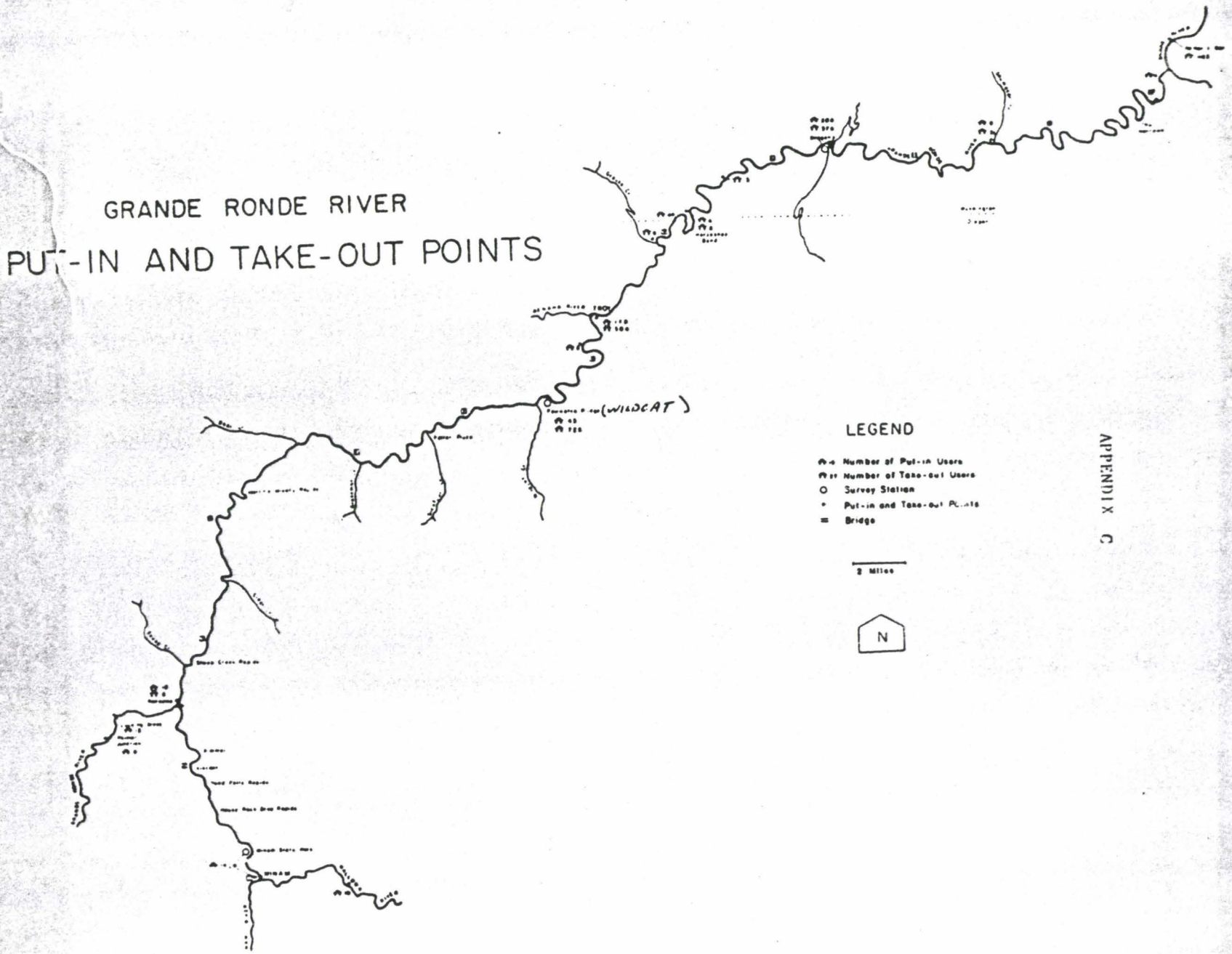
Schreyer, R.M. and J.W. Roggenbuck, 1978. The influence of Experience Expectation on Crowding Perceptions and Social-Psychological Carrying Capacities. Leisure Sciences. 1(4):373-394.

Sines, R., District Ranger (Retired), Wallowa - Whitman Naitonal Forest, personal contact.

Summers, J. Lute Jerstad Adventures, personal contact.

Vaske, J.J.; Graefe, A.R.; Kuss, F.R., 1983. "Recreation Impacts: A Synthesis of Ecological and Social Research", 48th North American Wildlife and National Resources Conference, Kansas City, Missouri.

APPENDIX B
pg.27


GRANDE RONDE RIVER
PUT-IN AND TAKE-OUT POINTS
(WILDCAT)
LEGEND
Number of Put-in Users
Number of Take-out Users
Survey Station
Put-in and Take-out Points
Bridge
2 Miles
N

APPENDIX C

APPENDIX D

1983 PERMITS-ACTIVE-OUTFITTER-GUIDE

Barker River Trips
2124 Greele
Lewiston, ID 83501

Blue Heron Enterprises
Norm Hogg
88-900 Avenue 61
Thermal, CA 92274

Cascade Waterways Inc.
Gary Flightner
15745 NW Norwich St.
Beaverton, OR 97006

Downstream River Runners
Casey Garland
12112 NE 195th
Bother, WA 98011

Grande Ronde Rafting
Bill Forster
P.O. Box 79
Enterprise, OR 97828

Grande Ronde River Tours
Joel Ryan
P.O. Box 24
Lostine, OR 97857

Hughes River Expeditions
Jerry Huges
P.O. Box 217
Cambridge, ID 83610

Lute Jerstad Adventures
Lute Jerstad
P.O. Box 19527
Portland, OR 97219

Northwest Voyageurs
William Bender
Box 1734
McCall, ID 83638

Northwest Whitewater Expeditions
Don Merrell
P.O. Box 3765
Portland, OR 97208

Outdoors Ltd.
Ken Warren
P.O. Box 02056
Portland, OR 97207

Oregon River Experiences
Rovert Doppelt
1935 Hayes Street
Eugene, OR 97405

Rendezvous River Trips
Ernest Patterson
Joseph, OR 97846

River Odysseys West
Peter Grubb
S. 2202 Custer
Spokane, WA 99230

River Rafters of Oregon
Richard Henry
2700 N. Emerson
Portland, OR 97217

Sevy Guide Service
Robert Sevy
P.O. Box 1527
Sun Valley, ID 83353

Steen's Wild River Tours
P.O. Box 216
Joseph, OR 97846

Nichols River Expeditions
c/o Judy Nichols
P.O. Box 418
Frisco, CO 80443

Walker River Expeditions
James Walker
Rt. 1 Box 228F
Enterprise, OR 97828

Wild West River Rovers
Rt. 2 Box 39B
Elgin, OR 97827

Eclipse Expeditions
Rt. 1 Box 72
Cove, OR 97824

APPENDIX E

Forest Service 1983 Code-a-Site Inventory

	Site	Tent Spaces	Frequency of site use	Impacts of Previous use	Improvements or comments
	80-1	2	1	L	
	80-2	5	3	H	Rock Fire Rings
	78-1	3	0	L	
	77-1	3	0	L	Private Land
	77-2	3	2	M	Private Land
	77-3	7	2	M	Private Land
	77-4	2	2	M	Private Land
	76-1	1	0-none	L-none	Private Land
	76-2	1	0	L	
	76-3	3	0	L	
Clear Cr.	76-4	3	3	H	1-table 1-fireplace 1-toilet (full)
	75-1	10+	2	M	
	75-2	5	2	L	
	75-3	8+	2	M	
	75-4	2	2	M	
	74-1	3	0	L	
	74-2	4	0	L	
	74-3	2	0	L	
	73-1	2	2	M	
	72-1	5	2	M	+Dev. Poss.
	72-2	9	2	M	+Dev. Poss.
	72-3	3	0	L	+Dev. Poss.
	71-1	2	2	M	Fire Prev. Bound.
	71-2	7	1	L	
	70-1	7	1	L	Poten. to increase
	70-2	9	1	L	
	70-3	5	2	M	
	69-1	1	1	L	
	69-2	10+	2	M	Site ½ used
	68-1	2	1	L	
	68-2	2	1	L	
	67-1	2	2	L	
	67-2	3	1	M	
Bear Cr.	67-3	9	3	M	Knapweed,2-fire rings 1-table, 1-toilet(full)
	67-4	3	3	H	1-table, 1-fireplace
	67-5	10	2	M	+Dev. Poss. Knapweed
	66-1	10	1	L	
	66-2	6	0	L	
	66-3	6	0-none	L-none	
Elbow Cr.	65-1	8	2	M	1-table, 1-fireplace Needs toilet

APPENDIX E CONTINUED

Site	Tent Spaces	Frequency of Site Use	Impacts of Previous Use	Improvements or Comments
65-2	2	2	M	1-fireplace, table missing
65-3	6	1	L	
64-1	10+	2	M	+Dev. Poss. 25% used now
64-2	2	1	L	
64-3	1	0	1	
63-1	10+	1	L	1-fireplace
63-2	10+	1	M	
Total	229			

Legend

Frequency of Site Use	Impact of Previous Use
0-infrequent	L-light
1-slight	M-moderate
2-moderate	H-heavy
3-frequent	E-extreme
4-constant	

BLM - Site Inventory

Site No	River Mile	Maximum Parties	Maximum Persons	Overall Rating	Comments or Improvements
1	62.5	1	4	Fair	USFS
2	62	3	15	Fair	Rock Fire Rings (RFR) BLM
3	60.5	2	10	Fair	BLM
4	60.5	3	30	Excellent	RFR, Prim Table, BLM
5	59.5	3	21	Excellent	RFR, BLM
6	58.5	3	30	Excellent	RFR-cult. res. sandy beach, 1-picnic table
7	58.25	2	10	Fair	RFR, PVT.
8	57.5	3	36	Excellent	RFR, BLM
9	56.75	2	10	Fair	BLM
10	56.5	3	21	Fair	PVT.
11	55.75	3	15	Fair	PVT.
12	52.75	3	15	Excellent	End River Sec. 2 Take out point(state land)
		31*	227#		

*28 above take out
#202 above take out